

Name

Date

Period

### Diffusion Lab

Purpose: To gain an understanding of the process of diffusion.

Materials: 2 Petri dishes  
1 Stopwatch  
1 Graduated cylinder (25 ml)  
Graph paper  
Food coloring

- Procedure:
1. Draw two coordinate systems on graph paper, as large as the bottom of the Petri dishes. Use each square as a coordinate. See provided example.
  2. Place one Petri dish on top of each coordinate system that you just created. Be sure to center the Petri dish on the coordinate system.
  3. Fill each Petri dish with 25 ml of water, one with hot water and one with cold water.
  4. Holding the food coloring bottle one inch above the water, carefully drop ~~one~~ drop of food coloring into the center of the hot water dish.
  5. Use the stopwatch to time every 10 seconds, while recording the number of squares the drop has traveled. Only measure the distance the dark circle has traveled. Continue taking measurements for 2 minutes. Record your measurements on the data sheet.
  6. Repeat steps 4 and 5 with the cold water dish.